

§ 108.469

§ 108.469 Quantity of foam producing materials.

(a) Except as provided in paragraph (b) of this section, each foam extinguishing system with outlets—

(1) In a tank must have enough foam producing material to discharge foam for at least 5 minutes at each outlet; and

(2) In a space must have enough foam producing material to discharge foam for at least 3 minutes at each outlet.

(b) If a foam system has outlets in more than one tank or space, the system need have only enough foam producing material to cover the largest space that the system covers or, if the liquid surface of a tank covered by the system is larger, the tank with the largest liquid surface.

§ 108.471 Water pump.

Each water pump in a foam extinguishing system must be outside each machinery space in which the system has outlets and must not receive power from any of those spaces.

§ 108.473 Foam system components.

(a) Each foam agent, each tank for a foam agent, each discharge outlet, each control, and each valve for the operation of a foam extinguishing system must be approved by the Commandant.

(b) Each foam agent tank and each control and valve for the operation of a foam extinguishing system with outlets in a space must be outside the space and must not be in a space that may become inaccessible if a fire occurs in the space.

(c) Each control for a foam extinguishing system with outlets in a space must be near a main escape from the space.

§ 108.474 Aqueous film forming foam systems.

Aqueous film forming foam systems may be installed if approved by the Commandant.

§ 108.475 Piping.

(a) Each pipe, valve, and fitting in a foam extinguishing system must meet the applicable requirements in Subchapter F of this chapter.

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(b) Each pipe, valve, and fitting made of ferrous material must be protected inside and outside from corrosion.

(c) Each pipe, valve, and fitting must have support and protection from damage.

(d) Each foam extinguishing system must have enough—

(1) Dirt traps to prevent the accumulation of dirt in its pipes; and

(2) Drains to remove liquid from the system.

(e) Piping in a foam extinguishing system must be used only for discharging foam.

§ 108.477 Fire hydrants.

(a) If a fixed foam extinguishing system has outlets in a main machinery space, at least 2 fire hydrants, in addition to the fire hydrants required by § 108.423 of this subpart, must be installed outside the entrances to the space with each at a separate entrance.

(b) Each hydrant must have enough hose to spray any part of the space.

(c) Each hydrant must have a combination nozzle and applicator.

FIRE PROTECTION FOR HELICOPTER FACILITIES

§ 108.486 Helicopter decks.

At least two of the accesses to the helicopter landing deck must each have a fire hydrant on the unit's fire main system located next to them.

§ 108.487 Helicopter deck fueling operations.

(a) Each helicopter landing deck on which fueling operations are conducted must have a fire protection system that discharges protein foam or aqueous film forming foam.

(b) a system that only discharges foam must—

(1) Have enough foam agent to discharge foam continuously for at least 5 minutes at maximum discharge rate;

(2) Have at least the amount of foam agent needed to cover an area equivalent to the swept rotor area of the largest helicopter for which the deck is designed with foam at—

(i) If protein foam is used, 6.52 liters per minute for each square meter (.16 gallons per minute for each square foot) of area covered for five minutes;

(ii) If aqueous film forming foam is used, 4.07 liters per minute for each square meter (.1 gallons per minute for each square foot) of area covered for five minutes; and

(3) Be capable of discharging from each hose at 7 kilograms per square centimeter (100 pounds per square inch) pressure—

(i) A single foam stream at a rate of at least 340 liters (90 gallons) per minute; and

(ii) A foam spray at a rate of at least 190 liters (50 gallons) per minute.

(c) Each system must have operating controls at each of its hose locations, be protected from icing and freezing, and be capable of operation within 10 seconds after activation of its controls.

(d) Each system must have at least one hose at each of the two access routes required by §108.235(f) of this part. Each hose must be reel mounted and long enough to cover any point on the helicopter deck. Each hose that discharges foam must have a nozzle that has foam stream, foam spray, and off positions.

§ 108.489 Helicopter fueling facilities.

(a) Each helicopter fueling facility must have a fire protection system that discharges one of the following agents in the amounts prescribed for the agents over the area of the fuel containment systems around marine portable tanks, fuel transfer pumps and fuel hose reels:

(1) Protein foam at the rate of 6.52 liters per minute for each square meter (.16 gallons per minute for each square foot) of area covered for five minutes.

(2) Aqueous film forming foam at the rate of 4.07 liters per minute for each square meter (.1 gallon per minute for each square foot) of area covered for five minutes.

(3) 22.5 kilograms (50 pounds) of dry chemical (B-V semi-portable) for each fueling facility of up to 27.87 square meters (300 square feet).

(b) If the fire protection system required by §108.487 of this subpart is ar-

ranged so that it covers both a helicopter fueling facility and a landing deck, the system must have the quantity of agents required by this section in addition to the quantity required by §108.487.

HAND PORTABLE AND SEMI-PORTABLE
FIRE EXTINGUISHING SYSTEMS

§ 108.491 General.

Each hand portable and semiportable fire extinguisher on a unit must be approved under Subpart 162.028 or 162.039 of this chapter.

§ 108.493 Location.

(a) Each unit must have the hand portable and semiportable fire extinguishers prescribed in Table 108.495(a) of this subpart and installed in the locations prescribed in the table.

(b) Each portable and semi-portable fire extinguisher must be visible and readily accessible.

(c) The location, size, and number of each portable and semiportable fire extinguisher on a unit must be acceptable to the appropriate OCFI. The OCFI may require extinguishers in addition to those prescribed in Table 108.495(a) if he considers them necessary for fire protection on the unit.

(d) Each hand portable and semiportable fire extinguisher that has a nameplate which states that it is to be protected from freezing, must be located where freezing temperatures do not occur.

§ 108.495 Spare charges.

(a) Each unit must have enough spare charges for 50 percent of the hand portable fire extinguishers required under Table 108.495(a) of this subpart that are rechargeable by personnel on the unit.

(b) If a unit has extinguishers that cannot be recharged by personnel on unit, it must also have at least one spare extinguisher for each classification and variety of those extinguishers.